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10/576,037

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EXAMINER

CUMBESS, YOLANDA R

ART UNIT

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3651

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,037	<b>Applicant(s)</b> CHOAI, ORLEI DA SILVA	
	<b>Examiner</b> YOLANDA CUMBESS	<b>Art Unit</b> 3651	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 3/15/2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/14/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 22, 24, 33, and 35, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Appropriate clarification is required.

Regarding claims 1 and 25, the phrase "or " renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d). Appropriate clarification is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 3-24 (as understood by the Examiner) are rejected under 35 U.S.C. 103(a) as being unpatentable over Staton (US Patent No. 4,722,432) in view of Abler (US Patent No. 5,174,431). Relative to claim 1, Staton discloses: a vacuum feeder system comprising a transfer device (46)(Fig. 1) for flaccid materials or pieces

Art Unit: 3651

(24)(Fig. 1) from a transport means (32)(Fig. 1) to another transport means (34)(Fig. 3) or a weighing system characterized by the materials or pieces being delivered to said transfer device (46)(Fig. 1), the transfer device (46) comprising a rotating disc body having holes (see holes of recess 81, Fig. 3) on the disc surface, said holes (81) being connected to a vacuum pump (Col. 4, lines 43-50) through vacuum connection means (78)(Fig. 3), and wherein said materials or pieces are delivered one by one to said another transport means (34) or a weighing system (Col. 3, lines 36-50). Staton does not expressly disclose the transfer device comprising a rotating cylinder body.

Abler teaches a transfer device (20)(Fig. 2) comprising a rotating cylinder body (Fig. 2-3) to provide an improved means to hold food material slices in place by negative air pressure while removing liquid fat, grease, or the like. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Staton with the transfer device comprising a rotating cylinder body as taught in Abler to provide an improved means to hold food material slices in place by negative air pressure while removing liquid fat, grease, or the like.

Relative to claim 3, Stanton in view of Abler teaches materials being delivered to said transfer device in accumulated form, e.g. accumulated next to the cylindrical surface (Abler: Col. 2, lines 15-20) (Fig. 1, Ref. 16) (Col. 4, lines 35-40). Relative to claim 27, the method of transferring items whereby said items or pieces are being delivered to said transfer device in accumulated form is deemed inherent or included in the disclosure of Stanton in view of Abler as addressed above.

Relative to claims 4-9, Stanton in view of Abler teaches the vacuum connection

Art Unit: 3651

means (78) being coupled through flanges (50)(Fig. 3-4)(Col. 6, lines 55-60); the vacuum connection means (78) having a vacuum distribution chamber (51)(Fig. 2); the vacuum connection means (78) being connected to a tube (58)(Fig. 2) external to the cylinder; the vacuum connection means (78) comprising means that are placed inside said cylinder Fig. 3); the vacuum connection means (78) being placed inside said cylinder comprising a plurality of vacuum communication means (Fig. 3); Col. 5, lines 16-36; Col. 6, lines 1-10); characterized by that said vacuum connection means (78) being placed inside said cylinder (Fig. 3) comprises a bundle of tubes (Fig. 3).

Relative to claims 10-11 and 29-30, Stanton modified as above discloses all claim limitations, including a vacuum feeder characterized by the materials being delivered at a level below the lower level of said cylinder (Abler: Fig. 1-3). Stanton, modified as above, does not expressly disclose materials being delivered at a level above the lower level of said cylinder. Stanton can be further modified so that materials being delivered at a level above the lower level of said cylinder as matter of design choice depending on the type of product to be conveyed, required space, and types of processes performed. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Stanton with the disclose materials being delivered at a level above the lower level of said cylinder as matter of design choice depending on the type of product to be conveyed, required space, and types of processes performed.

Art Unit: 3651

Relative to claims 29-30, the method of transferring items whereby said items or pieces are supplied to said suction means at a level above the lower level for said rotatable cylindrical surface; or whereby said items or pieces are supplied to said suction means at a level below the lower level (Abler: Fig. 1-3) for said rotatable cylindrical surface is deemed inherent of included in the disclosure of Stanton in view of Abler as addressed above.

Relative to claims 13-15, Stanton in view of Abler discloses: the vacuum connection means (Stanton: Ref. 78) being connected to the cylinder (Abler: Ref. 20) body, said vacuum connection means (Stanton, Ref. 78) connecting each of the holes (Stanton, Ref. 81) on the cylindrical surface (Fig. 3) to each of a plurality of holes (Stanton, see holes at bottom of Ref. 78)(Fig. 3), at least some of which are arranged in a circle (Fig. 3) on one of the sides corresponding to one of the cylinder bases (Fig. 3); a flange (50) facing the cylinder base (Stanton, Fig. 1) having a passage (Stanton, Ref. 86) arranged in an arc of circle form (Fig. 4) having a radius substantially equal to the radius of the circle on which at least some of the holes are placed on said cylinder base (Fig. 4) (Col. 6, lines 31-45); characterized by having a flange (Stanton, Ref. 50) that overlaps a flange (Col. 6, lines 45-60) facing the cylinder base and said flange (Stanton, Ref. 50) having a vacuum distribution chamber (Stanton. Ref. 51) lined up with said passage in the flange (Stanton, Ref. 50) facing the cylinder base (Col. 6, lines 45-60)(Fig. 1).

Relative to claims 16-20, Stanton modified as above discloses all claim limitations including each hole (Stanton, Ref. 81) on the cylindrical surface having a

Art Unit: 3651

socket a nozzle (see socket of Ref. 81) formed by a normal cross-section of the cylinder body (Fig. 1-3) that forms the socket, but does not expressly disclose: the socket in the form of an oval nozzle resulting from an inclined cut at the end of the cylinder body that forms the socket; the socket in the form of a circular nozzle formed by a normal cross-section of the cylinder body that forms the socket; the socket in the form of a hollow truncated cone nozzle formed by bevelling the normal cross-section of the straight end of the cylinder body that forms the socket; the socket in the form of a circular nozzle formed by a ring type cylindrical boss on the top of the cylinder body that forms the socket; or the socket in the form of a rectangular nozzle on the top end of the cylinder body that forms the socket.

Stanton can be modified so that the socket is in the form of an oval nozzle resulting from an inclined cut at the end of the cylinder body; the socket is in the form of a circular nozzle; the socket is in the form of a hollow truncated cone nozzle formed by bevelling the normal cross-section of the straight end of the cylinder body that forms the socket; the socket is in the form of a circular nozzle formed by a ring type cylindrical boss on the top of the cylinder body that forms the socket; or the socket in the form of a rectangular nozzle on the top end of the cylinder body that forms the socket as a matter of design choice based on factors such as the desired amount and rate of air flow that flows through the socket and the suction needed for the type of item transferred.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Stanton with the sockets in the form of an oval nozzle, a circular nozzle, hollow truncated cone, circular nozzle formed by a ring-type cylindrical

Art Unit: 3651

boss, or a rectangular nozzle as a matter of design choice based on factors such as desired amount and rate of air flow that flows through the socket and the suction needed for the type of item transferred.

Relative to claims 21, 23, 24, 25, and 34-35, Stanton in view of Abler and Doornekamp discloses: wherein said rotatable surface is the surface of a cylinder (Abler: Ref. 20) placed at the transfer location (Fig. 3) with an axis placed essentially horizontally (Abler: Fig. 1-3); wherein pieces that are not caught by the rotating cylinder body can continue to a discharge point in order to be replaced on said transport means (Abler: Fig. 3)(Col. 5, lines 45-65); wherein said pieces that are delivered by said transfer device are being graded for packing and storing (Doornekamp: Col. 3, lines 65-67; Col. 4, lines 1-5). Relative to claim 28, the method of transferring items whereby said rotatable cylindrical surface is the surface of a cylinder placed at the transfer location with an axis placed essentially horizontally (Abler: Fig. 1-3) is deemed inherent or included in the disclosure of Stanton in view of Abler as addressed above.

Relative to claims 34-35, the method of transferring items whereby items or pieces that are not caught by said suction means can continue to a discharge point in order to be replaced on said transport means; and whereby said items or pieces that are delivered by said transfer device are being graded, for packing and storing is deemed inherent or included in the disclosure of Stanton in view of Abler as addressed above.

Relative to claim 22, Stanton modified as above discloses all claim limitations, but does not expressly disclose wherein said pieces may differ in size, shape, and



Art Unit: 3651

weight from each other. Stanton can be further modified so that pieces may differ in size, shape, weight from each other as a matter of design choice as an efficient means to sort and transfer products of different sizes for further weighing and processing. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Stanton with the pieces may differ in size, shape, weight from each other as a matter of design choice as an efficient means to sort and transfer products of different sizes for further weighing and processing.

Relative to claim 33, the method of transferring items wherein said pieces may differ in size, shape, and weight from each other is deemed inherent or included in the disclosure of Stanton in view of Abler as addressed above.

Claims 2 and 26 (as understood by the Examiner) are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanton and Abler as applied to claim 1 above, and further in view of Doornekamp (US Patent No. 5,749,453). Relative to claim 2, Stanton modified as above discloses all claim limitations, but does not expressly disclose the said materials being delivered to said transfer device in an unordered form. Doornekamp teaches said materials being delivered to said transfer device in an unordered form in order to provide a high speed transfer apparatus that transfers and orients fragile food products which increases processing capacity (Col. 1, lines 50-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Staton with the materials being delivered in an unordered form as

Art Unit: 3651

taught in Doornekamp in order to provide a high speed transfer apparatus that transfers and orients fragile food products which increases processing capacity.

Relative to claim 26, the method of transferring items or pieces being delivered to the transfer device in an unordered form is deemed inherent or included in the disclosure of Stanton in view of Abler and Doornekamp as addressed above.

Claims 25 and 27-35 (as understood by the Examiner) are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanton in view of Abler. Relative to claim 25, Stanton teaches: a method of transferring items (24) or pieces of flaccid materials, whereby said items are supplied via transport means (32) such as a conveyor belt to a transfer location (34), said items are gripped from said transport means by suction means (Col. 4, lines 10-50), said suction means being arranged in a rotatable disc surface (46) in such a manner that the items are gripped one by one (Col. 3, lines 32-45)(Col. 4, lines 1-5), wherein said items are transferred during rotation of said suction means to a release location (see release location near Ref. 42, 44), where suction is interrupted and the item is placed on a further transport means (34) or a weighing system (Col. 6, lines 23-44); and whereby said items (24) or pieces are released one by one onto said further transport means (34) or said weighing system (Fig. 1).

Stanton does not expressly disclose: a cylindrical surface, or whereby the further transport means or the weighing system is placed below said rotatable cylindrical surface. Abler teaches: a cylindrical surface (20)(Fig. 2-3), and whereby the further transport means or the weighing system is placed below said rotatable cylindrical

Art Unit: 3651

surface (Fig. 1-3) to provide an improved means to hold food material slices in place by negative air pressure while removing liquid fat, grease, or the like. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method as disclosed in Staton, whereby the further transport means or the weighing system is placed below said rotatable cylindrical surface the transfer device as taught in Abler to provide an improved means to hold food material slices in place by negative air pressure while removing liquid fat, grease, or the like.

Relative to claim 32, Stanton in view of Abler teaches whereby said items or pieces that are supplied via the transport means such as a conveyor belt to a transfer location, are accumulated at said location until gripped by said suction means Abler: Col. 2, lines 15-20) (Fig. 1, Ref. 16) (Col. 4, lines 35-40)(See also, Doornekamp, Fig.1).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOLANDA CUMBESS whose telephone number is (571)270-5527. The examiner can normally be reached on MON-THUR 9AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GENE CRAWFORD can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 3651

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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